

Amendments to the Claim:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A peptide having a sequence of at most 44 amino acid residues comprising a motif of the formula

$X^1-X^2-Cys-X^3-X^4-X^5-X^6-X^7-X^8-X^9-X^{10}-X^{11}-X^{12}-X^{13}-X^{14}-X^{15}-X^{16}-X^{17}-Cys-X^{18}-X^{19}$,

wherein

~~(1) each of X1 and X19 is, independently, either a sequence consisting of 2-5 amino acid residues or a single amino acid residue, and~~

~~(2) each of X2-X18 is, independently, a single amino acid residue, and~~

wherein

~~X¹ is a sequence Arg, Lys or a peptide consisting of 2-5 amino acids residues, or an amino acid residue selected from Group 2;~~

~~X² is selected from Group 5 Ala, Arg, Asn, Gln, Gly, His, Ile, Leu, Lys, Met, Phe, Pro, Ser, Thr, Trp, Val or Tyr;~~

~~X³, X¹⁵ and X⁷ are selected from Group 1 is Ala, Gly or Ser;~~

~~X⁵ is Thr or selected from Group 1, Ala, Gly or Ser;~~

~~X⁶, X¹¹, X¹², X¹³ and X⁷ are selected from Group 3 is His, Ile, Leu, Met, Phe, Pro, Thr, Val, Trp or Tyr;~~

~~X⁷ is His, Ile, Leu, Met, Phe, Pro, Thr, Val, Trp or Tyr;~~

~~X⁸ and X¹⁷ are selected from Group 1, 3 or 4 is Ala, Gly, Ser, His, Ile, Leu, Met, Phe, Pro, Thr, Val, Trp, Tyr, Asn or Gln;~~

~~X⁹ is selected from Group 5 Arg, Lys, Ala, Gly, Ser, His, Ile, Leu, Met, Phe, Pro, Thr, Val, Trp, Tyr, Asn or Gln;~~

~~X¹⁰ is selected from Group 2, 3 or 4 Arg, Lys, His, Ile, Leu, Met, Phe, Pro, Thr, Val, Trp, Tyr, Asn or Gln;~~

~~X¹¹ is His, Ile, Leu, Met, Phe, Pro, Thr, Val, Trp or Tyr;~~

~~X¹² is His, Ile, Leu, Met, Phe, Pro, Thr, Val, Trp or Tyr;~~

X¹³ is His, Ile, Leu, Met, Phe, Pro, Thr, Val, Trp or Tyr;

X¹⁴ is Ser or selected from Group 3, His, Ile, Leu, Met, Phe, Pro, Thr, Val, Trp or Tyr;

X¹⁵ is Ala, Gly or Ser;

X¹⁶ and X¹⁸ is selected from Group 1 or 3 Ala, Gly, Ser, His, Ile, Leu, Met, Phe, Pro, Thr, Val, Trp or Tyr;

X¹⁷ is Ala, Gly, Ser, His, Ile, Leu, Met, Phe, Pro, Thr, Val, Trp, Tyr, Asn or Gln;

X¹⁸ is Ala, Gly, Ser, His, Ile, Leu, Met, Phe, Pro, Thr, Val, Trp or Tyr;

X¹⁹ is a sequence Ala, Arg, Asn, Gln, Gly, His, Ile, Leu, Lys, Met, Phe, Pro, Ser, Thr, Trp, Val, Tyr or a peptide consisting of 2-5 amino acids residues, or a single amino acid residue selected from Group 5;

with Group 1 consisting of Ala, Gly, and Ser,

Group 2 consisting of Arg and Lys,

Group 3 consisting of His, Ile, Leu, Met, Phe, Pro, Thr, Val, Trp, and Tyr,

Group 4 consisting of Asn and Gln, and

Group 5 consisting of Ala, Asn, Arg, Gln, Gly, His, Ile, Leu, Lys, Met, Phe, Pro, Ser, Thr, Trp, Tyr, and Val,

with the proviso, that when X¹ includes Pro, then X¹⁹ is Gln, and wherein at least one of the following conditions applies:

(a) X1 is amino acids 1-5 of SEQ ID NO:595, 600, 605 or 606; X1 is one of SEQ ID NOS:607, 608, 609, 610 or 612; or X1 is Arg or Lys; or

(b) X19 is not Gly, Ala or Ser

wherein at least one of the following conditions applies:

(a) X19 is Arg or Ala,

(b) X9 is Pro, Arg, or Gln,

(c) X19 is Gln and X1 includes Pro,

(d) X19 is 2-5 amino acid residues, or

(e) X10 is Asn or Gln.

2-26. (Cancelled)

27. (Previously Presented) The peptide according to claim 1, wherein said peptide has the sequence KQGRHFCGGALIHARFVMTAASCFR (SEQ ID NO: 595).

28. (Previously Presented) The peptide according to claim 1, wherein said peptide has the sequence KQGRPFCGGALIHARFVMTAASCFR (SEQ ID NO: 596).

29. (Withdrawn) The peptide according to claim 1, wherein said peptide has the sequence KQGRHFCGGALIHPRFVMTAASCFR (SEQ ID NO: 597).

30. (Previously Presented) The peptide according to claim 1, wherein said peptide has the sequence KQGRPFCGGALIHPRFVMTAASCFR (SEQ ID NO: 598).

31. (Withdrawn) The peptide according to claim 1, wherein said peptide has the sequence RFCSAATLVFRPHVLAGACFPRGQK (SEQ ID NO: 599).

32. (Previously Presented) The peptide according to claim 1, wherein said peptide has the sequence NQGRPFCAGALVHPRFVLTAASCFR (SEQ ID NO: 600).

33. (Withdrawn) The peptide according to claim 1, wherein said peptide has the sequence KQGRPFCAGALVHPRFVLTAASCFQ (SEQ ID NO: 601).

34. (Withdrawn) The peptide according to claim 1, wherein said peptide has the sequence NQGRPFCAGALVHPRFVLTAASCFQ (SEQ ID NO: 602).

35. (Previously Presented) The peptide according to claim 1, wherein said peptide has the sequence KQGRPFCAGALVHPQFVLTAASCFR (SEQ ID NO: 603).

36. (Cancelled)

37. (Withdrawn) The peptide according to claim 1, wherein said peptide has the sequence RRGHFCGATLIARNFVMSAVHCVN (SEQ ID NO: 605).

38. (Withdrawn) The peptide according to claim 1, wherein said peptide has the sequence RSREYRCGGTLVSQRYILTAASCAA (SEQ ID NO: 606).

39. (Cancelled)

40. (Previously Presented) The peptide according to claim 1, wherein said peptide has the sequence KQGRPFCAGALVHPRFVLTAASCFR (SEQ ID NO: 593).

41-52. (Cancelled)

53. (Previously Presented) The peptide according to claim 1, wherein said peptide is capable of inhibiting the secretion of cytokine IL-6 from monocytes.

54. (Previously Presented) The peptide according to claim 1, wherein said peptide is capable of stimulating the secretion of cytokine IL-6 from monocytes.

55-56. (Cancelled)

57. (Withdrawn) A method of treatment of gram-negative bacterial infection comprising administering, to an individual in need, one or more peptides as defined in claim 1.

58. (Withdrawn) A method of treatment of gram-positive bacterial infection comprising administering, to an individual in need, one or more peptides as defined in claim 1.

59-72. (Cancelled)

73. (Previously Presented) A pharmaceutical composition comprising a peptide as defined in claim 1.

74-79. (Cancelled)

80. (Withdrawn - Currently Amended) A method of treatment of gram-negative bacterial infection comprising administering, to an individual in need, one or more peptides as defined in claim 75 1.

81. (Withdrawn - Currently Amended) A method of treatment of gram-negative bacterial infection comprising administering, to an individual in need, one or more peptides as defined in claim 27 1.

82. (New) The peptide according to claim 1 wherein X1 is amino acids 1-5 of SEQ ID NO:5.

83. (New) The peptide according to claim 1 wherein X19 is not Gln, Ser or Ala.

84. (New) The peptide according to claim 83 wherein X19 is not Asn.

85. (New) The peptide according to claim 1 where X19 is Arg.

86. (New) The peptide according to claim 1 wherein X19 is Arg, Lys or His.

87. (New) The peptide according to claim 82 wherein X19 is Arg, Lys or His.

88. (New) The peptide according to claim 82 wherein X19 is Arg.

89. (New) The peptide of claim 1 wherein X8 is His, Arg, Lys, Val, Leu or Ile.

90. (New) The peptide of claim 1 wherein X8 is His or Val.

91. (New) The peptide of claim 1 wherein X8 is His, Arg or Lys.

92. (New) The peptide of claim 1 wherein X8 is His.

93. (New) the peptide of claim 1 wherein X9 is Ala, Gly, Ser, Thr, Met, Phe, Trp or Tyr.

94. (New) The peptide fo claim 1 wherein X9 is Ala, Gly, Ser, Thr or Met.

95. (New) The peptide of claim 1 wherein X9 is Ala or Phe.

96. (New) The peptide of claim 1 wherein X9 is Ala.

97. (New) The peptide of claim 1 wherein X10 is His, Arg or Lys.

98. (New) The peptide of claim 1 wherein X10 is Arg.

99. (New) The peptide of claim 1 wherein X17 is Ala, Gly, Ser, Thr or Met.

100. (New) The peptide of claim 1 wherein X17 is Ser.

101. (New) The peptide of claim 1 wherein X18 is Phe, Trp or Tyr.

102. (New) The peptide of claim 1 wherein X18 is Phe.

103. (New) The peptide of claim 1 wherein X2 is not Tyr; X3 is not Ala; X4 is not Ala; X11 is not Tyr; X12 is not Leu, Ile or Ala; X17 is not Arg, His or Lys; and X18 is not Tyr.

104. (New) The peptide of claim 1 which does not differ from SEQ ID NO:595 solely by replacement of a single non-alanine residue with alanine, or solely by replacement of a single non-

serine residue with serine.

105. (New) the peptide of claim 103 wherein X2, X3, X4, X8, X17, X18 and X19 are not alanine.

106. (New) The peptide of claim 105 wherein X2, X3, X4, X5, X8, X9, X14, X15, X16, X18 and X19 are not serine.

107. (New) The peptide of claim 1 wherein X2 is Phe, Trp or Tyr.

108. (New) The peptide of claim 1 wherein X2 is Phe.

109. (New) The peptide of claim 1 wherein X3 is Ala, Gly, Ser, Thr or Met.

110. (New) The peptide of claim 1 wherein X3 is Ala or Gly.

111. (New) The peptide of claim 1 wherein X3 is Gly.

112. (New) The peptide of claim 1 wherein X4 is Ala, Gly, Ser, Thr or Met.

113. (New) The peptide of claim 1 wherein X4 is Gly.

114. (New) The peptide of claim 1 wherein X5 is Ala, Gly, Ser, Thr or Met.

115. (New) The peptide of claim 1 wherein X5 is Ala.

116. (New) The peptide of claim 1 wherein X6 is Leu, Ile or Val.

117. (New) The peptide of claim 1 wherein X6 is Leu.

118. (New) The peptide of claim 1 wherein X7 is Ile, Leu, Met or Val.

119. (New) The peptide of claim 1 wherein X7 is Leu or Ile.

120. (New) The peptide of claim 1 wherein X7 is Leu.

121. (New) The peptide of claim 1 wherein X11 is Phe, Tyr, Met or Pro.

122. (New) The peptide of claim 1 wherein X11 is Phe or Pro.

123. (New) The peptide of claim 1 wherein X11 is Phe.

124. (New) The peptide of claim 1 wherein X12 is His, Arg, Lys, Val, Leu or Ile.

125. (New) The peptide of claim 1 wherein X12 is His or Val.

126. (New) The peptide of claim 1 wherein X12 is Val, Leu

or Ile.

127. (New) The peptide of claim 1 wherein X12 is Val.

128. (New) The peptide of claim 1 wherein X13 is Leu, Val, Met, Gly, Ala, Ser, or Thr.

129. (New) The peptide of claim 1 wherein X13 is Leu, Val or Met.

130. (New) The peptide of claim 1 wherein X13 is Met.

131. (New) The peptide of claim 1 wherein X14 is Ala, Gly, Ser, Thr or Met.

132. (New) The peptide of claim 1 wherein X14 is Thr.

133. (New) The peptide of claim 1 wherein X15 is Ala, Gly, Ser, Thr or Met.

134. (New) The peptide of claim 1 wherein X15 is Ala.

135. (New) The peptide of claim 1 wherein X16 is Ala, Gly, Ser, Thr or Met.

136. (New) The peptide of claim 1 wherein X16 is Ala.